



3/19/02

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/085,188

DATE: 03/19/2002

TIME: 15:53:43

Input Set : A:\98-69C1.SEQ.txt

Output Set: N:\CRF3\03192002\J085188.raw

```

59          115          120          125
61 att tcg cgg gcg cag tac aac gcg ctc acc ctc acc ttc cag cgc gcc      614
62 Ile Ser Arg Ala Gln Tyr Asn Ala Leu Thr Leu Thr Phe Gln Arg Ala
63          130          135          140
65 atg cac gac tac aac cag gcc gag atg aag cag cgc gac aac tgc aag      662
66 Met His Asp Tyr Asn Gln Ala Glu Met Lys Gln Arg Asp Asn Cys Lys
67          145          150          155
69 atc cgc atc cag cgc cag ctg gag atc atg ggc aag gaa gtc tcg ggc      710
70 Ile Arg Ile Gln Arg Gln Leu Glu Ile Met Gly Lys Glu Val Ser Gly
71          160          165          170
73 gac cag atc gag gac atg ttc gag cag ggt aag tgg gac gtg ttt tcc      758
74 Asp Gln Ile Glu Asp Met Phe Glu Gln Gly Lys Trp Asp Val Phe Ser
75          175          180          185          190
77 gag aac ttg ctg gcc gac gtg aag ggc gcg cgg gcc gcc ctc aac gag      806
78 Glu Asn Leu Leu Ala Asp Val Lys Gly Ala Arg Ala Ala Leu Asn Glu
79          195          200          205
81 atc gag agc cgc cac cgc gaa ctg ctg cgc ctg gag agc cgc atc cgc      854
82 Ile Glu Ser Arg His Arg Glu Leu Leu Arg Leu Glu Ser Arg Ile Arg
83          210          215          220
85 gac gta cac gag ctc ttc ttg cag atg gcg gtg ctg gtg gag aag cag      902
86 Asp Val His Glu Leu Phe Leu Gln Met Ala Val Leu Val Glu Lys Gln
87          225          230          235
89 gcc gac acc ctg aac gtc atc gag ctc aac gta caa aag acg gtc gac      950
91 Ala Asp Thr Leu Asn Val Ile Glu Leu Asn Val Gln Lys Thr Val Asp
92          240          245          250
94 tac acc ggc cag gcc aag gcg cag gtg cgg aag gcc gtg cag tac gag      998
95 Tyr Thr Gly Gln Ala Lys Ala Gln Val Arg Lys Ala Val Gln Tyr Glu
96          255          260          265          270
98 gag aag aac ccc tgc cgg acc ctc tgc tgc ttc tgc tgt ccc tgc ctc      1046
99 Glu Lys Asn Pro Cys Arg Thr Leu Cys Cys Phe Cys Cys Pro Cys Leu
100          275          280          285
102 aag tagcaggccg gcccgggccg ccaccgcccc tcccagacca tggagcgcgc      1099
103 tgggaaggac gcaccaaagc cgggagctct gccctgcagg gagttgcccc aaccctttcc      1159
104 ggaactcagt ctttagaaaa gaaacgccag gttcaagaat tgcaaaccag cctgtgcttg      1219
105 gaaagatggt tagttgatac cgtccgatga ttcttcagta aagatagatt cccac      1274
107 <210> SEQ ID NO: 2
108 <211> LENGTH: 287
109 <212> TYPE: PRT
110 <213> ORGANISM: Homo sapiens
112 <400> SEQUENCE: 2
113 Met Lys Asp Arg Leu Ala Glu Leu Leu Asp Leu Ser Lys Gln Tyr Asp
114 1 5 10 15
115 Gln Gln Phe Pro Asp Gly Asp Asp Glu Phe Asp Ser Pro His Glu Asp
116 20 25 30
117 Ile Val Phe Glu Thr Asp His Ile Leu Glu Ser Leu Tyr Arg Asp Ile
118 35 40 45
119 Arg Asp Ile Gln Asp Glu Asn Gln Leu Leu Val Ala Asp Val Lys Arg
120 50 55 60
121 Leu Gly Lys Gln Asn Ala Arg Phe Leu Thr Ser Met Arg Arg Leu Ser

```

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```

122 65          70          75          80
123 Ser Ile Lys Arg Asp Thr Asn Ser Ile Ala Lys Ala Ile Lys Ala Arg
124          85          90          95
125 Gly Glu Val Ile His Cys Lys Leu Arg Ala Met Lys Glu Leu Ser Glu
126          100          105          110
127 Ala Ala Glu Ala Gln His Gly Pro His Ser Ala Val Ala Arg Ile Ser
128          115          120          125
129 Arg Ala Gln Tyr Asn Ala Leu Thr Leu Thr Phe Gln Arg Ala Met His
130          130          135          140
131 Asp Tyr Asn Gln Ala Glu Met Lys Gln Arg Asp Asn Cys Lys Ile Arg
132          145          150          155          160
133 Ile Gln Arg Gln Leu Glu Ile Met Gly Lys Glu Val Ser Gly Asp Gln
134          165          170          175
136 Ile Glu Asp Met Phe Glu Gln Gly Lys Trp Asp Val Phe Ser Glu Asn
137          180          185          190
138 Leu Leu Ala Asp Val Lys Gly Ala Arg Ala Ala Leu Asn Glu Ile Glu
139          195          200          205
140 Ser Arg His Arg Glu Leu Leu Arg Leu Glu Ser Arg Ile Arg Asp Val
141          210          215          220
142 His Glu Leu Phe Leu Gln Met Ala Val Leu Val Glu Lys Gln Ala Asp
143          225          230          235          240
144 Thr Leu Asn Val Ile Glu Leu Asn Val Gln Lys Thr Val Asp Tyr Thr
145          245          250          255
146 Gly Gln Ala Lys Ala Gln Val Arg Lys Ala Val Gln Tyr Glu Glu Lys
147          260          265          270
148 Asn Pro Cys Arg Thr Leu Cys Cys Phe Cys Cys Pro Cys Leu Lys
149          275          280          285

```

151 &lt;210&gt; SEQ ID NO: 3

152 &lt;211&gt; LENGTH: 861

153 &lt;212&gt; TYPE: DNA

154 &lt;213&gt; ORGANISM: Artificial Sequence

156 &lt;220&gt; FEATURE:

157 <223> OTHER INFORMATION: This degenerate sequence encodes the amino acid  
 158 sequence of SEQ ID NO:2.

160 &lt;221&gt; NAME/KEY: variation

161 &lt;222&gt; LOCATION: (1)...(861)

162 &lt;223&gt; OTHER INFORMATION: N is any nucleotide.

164 &lt;400&gt; SEQUENCE: 3

```

W--> 165 atgaargaym gnytngcnga rytnytngay ytnwsnaarc artaygayca rcarttyccn      60
W--> 166 gayggngayg aygarttyga ywsncncay gargayathg tnttygarac ngaycayath      120
W--> 167 ytngarwsny tntaymgnga yathmgngay athcargayg araaycaryt nytngtngcn      180
W--> 168 gaygtnaarm gnytnggnaa rcaraaygc nmgnttyytna cnwsnatgmg nmgnytnwsn      240
W--> 169 wsnathaarm gngayacnaa ywsnathgcn aargcnatha argcnmgngg ngargtnath      300
W--> 170 caytgyaary tnmngncnat gaargarytn wsnargcng cngargcnca rcayggncn      360
W--> 171 caywsngcng tngcnmgnt hwsnmngcn cartayaayg cnytnacnyt nacnttycar      420
W--> 172 mgngcnatgc aygaytayaa ycargcngar atgaarcarm gngayaaytg yaarathmgn      480
W--> 173 athcarmgnc arytnarat hatgggnaar gargtnwsng gngaycarat hgargayatg      540
W--> 174 ttygarcarg gnaartggga ygtnttywsn garaayytny tngcngaygt naarggngcn      600
W--> 175 mgngcngcny tnaaygarat hgarwsnmgn caymgngary tnytnmgnyt ngarwsnmgn      660

```

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```

W--> 176  athmgngayg tncaygaryt nttyytncar atggcngtny tngtngaraa rcargcngay      720
W--> 177  acnytnaayg tnathgaryt naaygtncar aaracngtny aytayacngg ncargcnaar      780
W--> 178  gcncargtnm gnaargcngt ncartaygar garaaraayc cntgymgnac nytntgytgy      840
W--> 179  ttytgytgyc cntgyytnaa r                                              861
181 <210> SEQ ID NO: 4
182 <211> LENGTH: 18
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: PCR primer
189 <400> SEQUENCE: 4
190  tggcggtgct ggtggaga                                                    18
192 <210> SEQ ID NO: 5
193 <211> LENGTH: 18
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: PCR primer
200 <400> SEQUENCE: 5
201  ccggcagggg ttcttctc                                                    18
203 <210> SEQ ID NO: 6
204 <211> LENGTH: 287
205 <212> TYPE: PRT
206 <213> ORGANISM: Homo sapiens
208 <400> SEQUENCE: 6
209  Met Lys Asp Arg Leu Ala Glu Leu Leu Asp Leu Ser Lys Gln Tyr Asp
210    1          5          10          15
211  Gln Gln Phe Pro Asp Gly Asp Asp Glu Phe Asp Ser Pro His Glu Asp
212          20          25          30
213  Ile Val Phe Glu Thr Asp His Ile Leu Glu Ser Leu Tyr Arg Asp Ile
214          35          40          45
215  Arg Asp Ile Gln Asp Glu Asn Gln Leu Leu Val Ala Asn Val Lys Arg
216          50          55          60
217  Leu Gly Lys Gln Asn Ala Arg Phe Leu Thr Ser Met Arg Arg Leu Ser
218          65          70          75          80
219  Ser Ile Lys Arg Asp Thr Asn Ser Ile Ala Lys Ala Ile Lys Ala Pro
220          85          90          95
221  Pro Glu Val Ile His Cys Asn Val Arg Ala Met Lys Glu Leu Ser Glu
222          100         105         110
223  Ala Ala Glu Ala Gln His Gly Pro Ala Leu Gly Ser Gly Gly Ile Ser
224          115         120         125
226  Arg Ala Gln Tyr Asn Ala Leu Thr Leu Thr Phe Gln Arg Ala Met His
227          130         135         140
228  Asp Tyr Asn Gln Ala Glu Met Lys Gln Arg Asp Asn Cys Lys Ile Arg
229          145         150         155         160
230  Ile Gln Arg Gln Leu Glu Ile Met Gly Lys Glu Val Ser Gly Asp Gln
231          165         170         175
232  Ile Glu Asp Met Phe Glu Gln Gly Lys Trp Asp Val Phe Ser Glu Asn
233          180         185         190

```

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Input Set : A:\98-69C1.SEQ.txt

Output Set: N:\CRF3\03192002\J085188.raw

```

234 Leu Leu Ala Asp Val Lys Gly Val Arg Ala Ala Leu Asn Glu Ile Glu
235           195                200                205
236 Ser Arg His Arg Glu Leu Val Arg Leu Glu Ser Ala Ile Arg Asp Val
237           210                215                220
238 His Glu Leu Phe Leu Gln Met Ala Val Leu Val Glu Lys Gln Ala Asp
239           225                230                235                240
240 Thr Leu Asn Val Ile Glu Leu Asn Val Gln Lys Thr Val Asp Tyr Thr
241           245                250                255
242 Gly Gln Ala Lys Ala Gln Val Arg Lys Ala Val Gln Tyr Glu Glu Lys
243           260                265                270
244 Asn Pro Cys Arg Thr Leu Cys Cys Phe Cys Cys Pro Cys Leu Lys
245           275                280                285
247 <210> SEQ ID NO: 7
248 <211> LENGTH: 22
249 <212> TYPE: DNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: PCR primer
255 <400> SEQUENCE: 7
256 ggacgtgttt tccgagaact tg
258 <210> SEQ ID NO: 8
259 <211> LENGTH: 22
260 <212> TYPE: DNA
261 <213> ORGANISM: Artificial Sequence
263 <220> FEATURE:
264 <223> OTHER INFORMATION: PCR primer
266 <400> SEQUENCE: 8
267 cgaccgtctt ttgtacgttg ag
269 <210> SEQ ID NO: 9
270 <211> LENGTH: 16
271 <212> TYPE: PRT
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Peptide linker.
277 <400> SEQUENCE: 9
278 Gly Gly Ser Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
279   1           5           10           15

```

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22

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/085,188

DATE: 03/19/2002

TIME: 15:53:44

Input Set : A:\98-69C1.SEQ.txt

Output Set: N:\CRF3\03192002\J085188.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3